

contact with said first insulating layer;

(c) forming a second insulating layer with said first type of stress on and in contact with said interconnection layer;

wherein said interconnection layer is sandwiched between and in contact with said first insulating layer and said second insulating layer so as to suppress bending of said interconnection layer.

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(continued)
44. A method according to claim 43, further comprising:

(d) before forming said first insulating layer or after forming said second insulating layer, forming a third insulating film with a second type of stress that is different from said first type of stress, so as to adjust overall stress of said stress-adjusted insulating film.

45. A method according to claim 44, wherein said first type of stress is compressive stress, and said second type of stress is tensile stress.

46. A method according to claim 45, wherein thickness (t_i) of i-th insulating film of said stress-adjusted film is determined so as not to exceed predetermined stress (δ_T) of said overall stress-adjusted insulating film where said stress (δ_T) is calculated as:

$$\sigma_T = \sum_{i=1}^n t_i \times \sigma_i$$

wherein δ_i is stress in said i-th insulating film and is positive when tensile stress and negative when compressive stress.

47. A method according to claim 44, wherein said forming of said first insulating layer is by plasma CVD, and said forming of said second insulating film is by heating for reaction a gaseous mixture including at least an organic silane and oxygen.

48. A method according to claim 43, wherein said interconnection layer is made of aluminum.

49. A semiconductor device comprising:

- (a) an interconnection layer;
- (b) two first insulating layers with a first type of stress, where said two first insulating layers sandwich and are in contact with said interconnection layer so as to suppress bending in said interconnection layer.

50. A semiconductor device according to claim 49, further